

## NISTTech

### RAPID DNA MELTING ANALYSES USING A MICROFABRICATED ELECTROCHEMICAL PLATFORM

---

**Docket No. 14-021**

#### **Abstract**

---

Microfabrication methods have been used to produce a new three-electrode measurement tool for electrochemical probing of the temperature dependence of molecular interactions in small-volume liquid samples. A wide range of chemical and biochemical phenomena, including biomolecular hybridization and melting, can be monitored with the device when probe or target species attach to the working electrode. The small size of the device and low volume for the samples it can interrogate, as well as the individually addressable components within the device, allow for using the device in array formats with high throughput operation.

#### **Inventors**

---

- Semancik, Stephen

#### **Status of Availability**

---

This invention is available for licensing exclusively or non-exclusively in any field of use.

Last Modified: 08/08/2014